

Teaching and Learning with Infants and Toddlers: Where Meaning-Making Begins



Mary Jane Maguire-Fong
2016 Child Health, Education, and Care Summit
DoubleTree by Hilton Hotel Sacramento
November 10, 2016, 10:30-12

Our Journey Today

- A glimpse at what scientists are learning about how infants and toddlers learn
- A proposal for how to build on this evidence from science as we teach and learn with infants and toddlers
- Examples of a reflective approach to infant curriculum
- Systems for teaching and learning that support reflective practice

Reflection

- What did you notice?
- How did he reveal to you his thinking?

On the website of the National Science Foundation:
"Berkeley Scientists Study Baby Brain Power." 3:33 on
<https://www.youtube.com/watch?v=JF9D8TO2KQU>

Interview with U.C. Berkeley scientist, Dr. Alison Gopnik

"Babies Think Like Scientists."

http://www.nsf.gov/news/news_videos.jsp?cntn_id=125575&media_id=73192

http://www.alisongopnik.com/lantern_v_spotlight.htm

**BABIES ARE SMARTER THAN WE
EVER IMAGINED.**

Babies 8 months old notice what is likely
and what is not. They appear to notice
large differences in quantity.

Research of Dr. Fei Xu

<http://www.youtube.com/watch?v=VrymCwZC7n0&feature=relmfu>

5

*"Babies listen intently to us and they are taking
statistics as they listen to us talk."*

Quote from Dr. Patricia Kuhl's TED talk.

- http://www.ted.com/talks/patricia_kuhl_the_linguistic_genius_of_babies.html?quote=907

[Patricia Kuhl 3:32 to 5:00](#)

6

Babies are gathering vast amounts of information and organizing it, within everyday moments of play and interactions.

Explore this link to hear how the research of Dr. Karen Wynn and colleagues suggests that babies, even those as young as 3 months old, show an ability to discriminate friend from foe:

<https://www.youtube.com/watch?v=anCaGBsBOxM&NR=1>
[From Mind in the Making, Vol. 3]

Screen shot from Dr. Karen Wynn's website, Yale University, The Infant Cognition Center
CBS Stahl:
<https://www.youtube.com/watch?v=FRvVFW85icU>

ALTRUISM IN BABIES?

8

Research of Tomasello and Warneken: How toddlers help others in need.

Even young infants appear to be aware of others' feelings and intentions.

<http://www.eva.mpg.de/psycho/study-videos.php>

Warneken, F. & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. *Science*, 311, 1301-1303.

COOPERATION BEGINS IN INFANCY

9

This research on *how* infants learn invites . . .

A REFLECTIVE APPROACH TO TEACHING AND LEARNING

Infants, like Scientists . . .

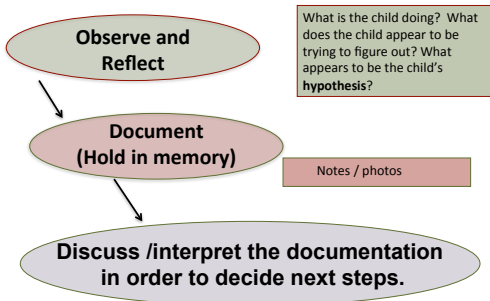
- Investigate and experiment to make meaning about objects, people, and events.
- Form hypotheses... "If I do ___, ___ will happen."
- Form theories ... "This is how things happen."

11

Reflective Curriculum Planning

(Adapted from CDE Infant/Toddler Curriculum Framework)

12



Teacher as
Researcher

What do I notice in the play? What ideas are made visible? How might we support the child's inquiry?

What might happen if we add...? How will the children respond if we....?

Planning Questions

"We as teachers are asked by children to see them as scientists or philosophers searching to understand something, to draw out a meaning We are asked to be the child's traveling companion in this search for meaning."

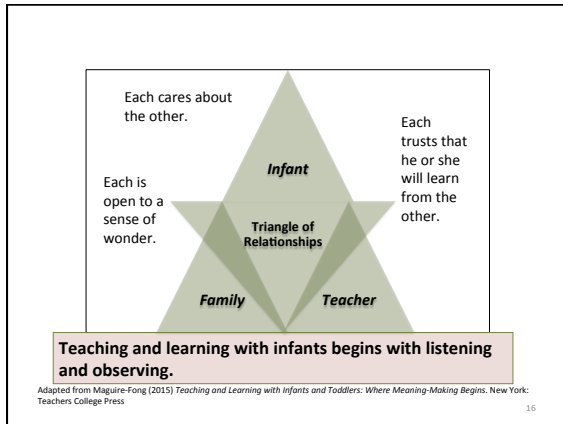
Carlina Rinaldi, President, Reggio Children

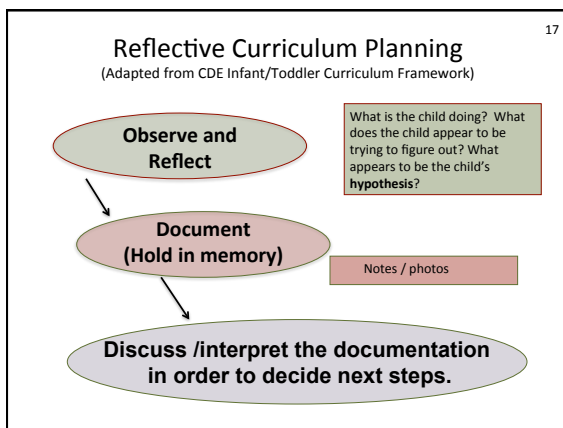
Rinaldi, C. (2006). Creativity, Shared Meaning, and Relationships. In J. R. Lally, P.L. Mangione, & D. Greenwald (Eds.), *Concepts for Care: 20 Essays on Infant/Toddler Development and Learning*, (pp. 21-23). San Francisco, CA: WestEd.

*"... We are also asked to respect the meanings that children produce, the explanatory **theories** they develop, and their attempts to find and give answers. When we honor the children this way, the children reveal [their thinking] to us."*

Carlina Rinaldi, President, Reggio Children

Rinaldi, C. (2006). Creativity, Shared Meaning, and Relationships. In J. R. Lally, P.L. Mangione, & D. Greenwald (Eds.), *Concepts for Care: 20 Essays on Infant/Toddler Development and Learning*, (pp. 21-23). San Francisco, CA: WestEd.





Naming the Learning: Cognitive Concepts (Thinking)		
<small>Adapted by Mary Jane Maguire-Fong from the California Department of Education Desired Results Developmental Profile 2015 (Bold font indicates items more likely seen in 3-5 year olds, than in infants or toddlers.)</small>		
	Classification: Distinguishing differences	Seriation: Relating things in order of their difference
Spatial Relations: Detecting how things fill, fit in, and move in space	Cause and Effect: Observing, anticipating, and reasoning about the relationship between cause and effect	Developing understanding of number and quantity
Representation: Using one thing to symbolize and represent another	Shapes	Knowledge of the natural world
Developing understanding of adding and subtracting small quantities	Investigates objects (living and nonliving things) through observation and exploration	Communicates observations and investigations about objects
Patterning	Measurement (2-5 years)	

Naming the Learning: Approaches to Learning <small>Adapted by Mary Jane Maguire-Fong from the California Department of Education Desired Results Developmental Profile 2015 (Bold font indicates items more likely seen in 3-5 year olds, than in infants or toddlers.)</small>		
Maintains attention	Curiosity and initiative in learning	Self-comforting
Self-control of feelings and behavior	Engagement and persistence in mastering activities	Shared use of materials and space
Imitation		

Early Head Start School Readiness Goals

- Language and literacy
- Cognition and general knowledge
- Approaches to learning
- Physical development and health
- Social and emotional development.

Source: *School Readiness Goals for Infants and Toddlers in Head Start and Early Head Start Programs: Examples from the Early Head Start National Resource Center.* OHS EHS NRC – June 5, 2012

20

“What is happening in [child] care today is a revolution in thinking about curriculum. The most critical curriculum components are no longer seen as lessons and lesson plans but rather **the planning of settings and experiences that allow learning to take place.**” (Lally, 2014, p. 52)

Lally, J.R. (2014). *For Our Babies*. New York: Teachers College Press

CURRICULUM AS “CONTEXTS”

Curriculum as Contexts
(Reference: CDE Infant/Toddler Curriculum Framework)

- Play spaces that invite children to investigate and build concepts and ideas
- Daily routines that invite children to use emerging skills and concepts
- Conversations/Interactions that support children in learning about self and others

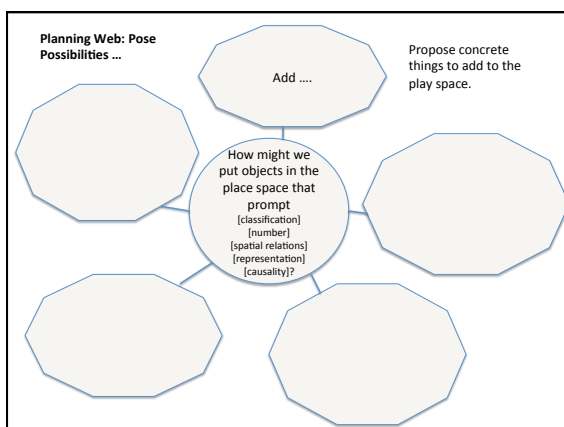
22

Play Spaces as Contexts for Curriculum

How do we offer materials that allow infants to connect one idea to another? To experience ordinary objects from the everyday world? From the world of nature?

What learning potential do they hold? [concepts, skills, dispositions?]

23



Propose a planning question, "What will the children do if we add ____ to the ____?"

THE WRITTEN PLAN

A PLAN OF POSSIBILITIES

Proposing Possibilities:
Why a "planning question?"

"What kind of context, what kind of possibility can you offer to the children for the next step and the next step, not because you know the next step, but because you want to offer a possibility for going deeper and deeper in their research"

Rinaldi, C., in Lally, J. R. (Producer/Director), Mangione, P. L. (Writer/Director). (2006). *New perspectives on infant/toddler learning, development, and care* [DVD] Disc 2, Chapter 3). United States: California Department of Education.

Planning question: What will the children do when they discover ____ added to the ____?

Observation	Reflection/Interpretation

27

Examples: Planning questions

What might happen if we offer children...?

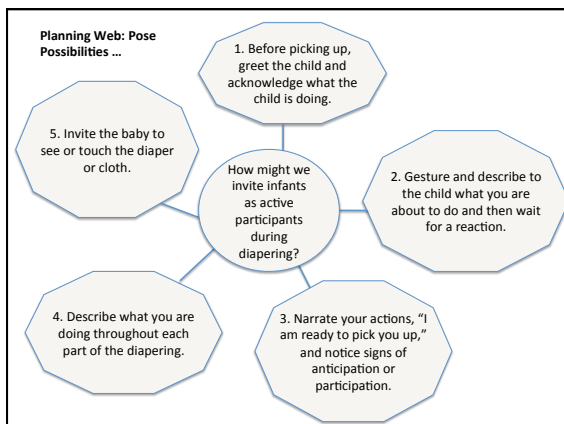
In what ways might they explore if we add to the routine / play space ...?

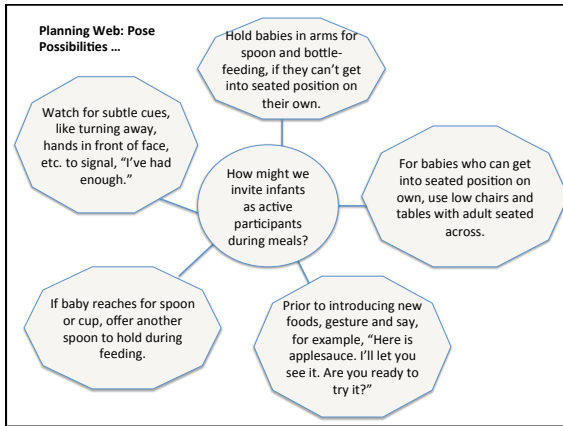
What might they do if we invite them to ...?

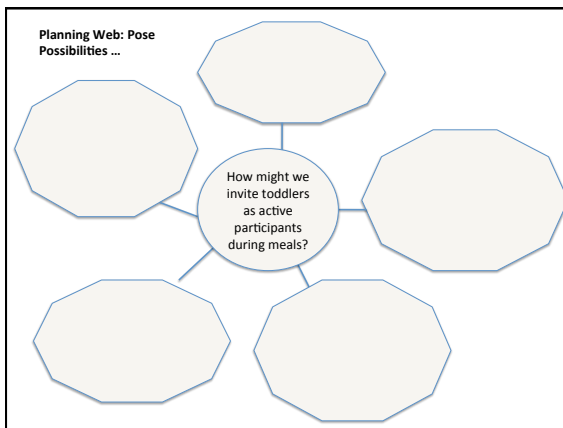
28

Daily Routines as Context for Curriculum

29







Routines as Context for Curriculum

Planning question: How will the children respond when invited to use pitchers to pour milk?

Observation	Reflection

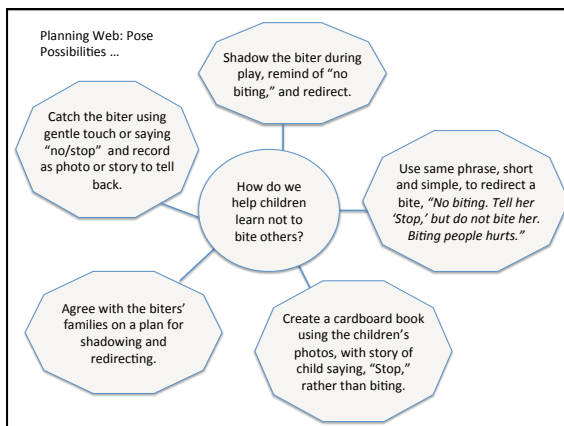
33

Conversation as Context for Curriculum

34
34

Planning question: When sad due to separating from loved ones, how will children respond if we offer them a photo of the person missed?

Observation	Photos	Reflections
<i>Record here what child involved in such an experience did or said.</i>		<i>Teachers reflect on how child responded to this new opportunity.</i>

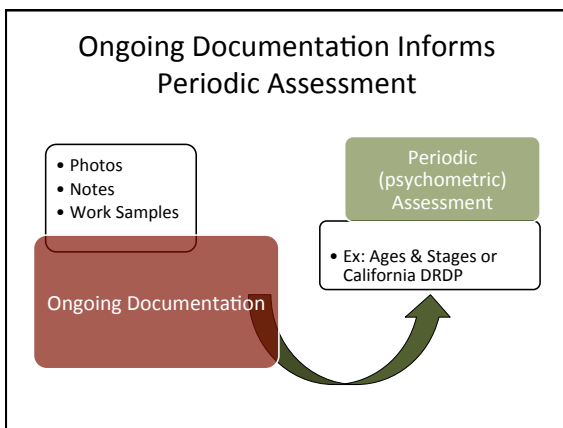


Conversation/Guidance as Context for Curriculum

Planning question: What will the toddlers do when we start responding to a bite or aggression with a clear limit and redirection: "I can tell you are angry because he won't give you that truck. But it is not ok for you to bite him. Biting hurts people. Tell him, 'I want that truck.'"

Observation	Photos	Reflections
Record here what each child involved in such an experience did or said.		Teachers reflect on how each child responded to this new strategy for responding to biting.

37

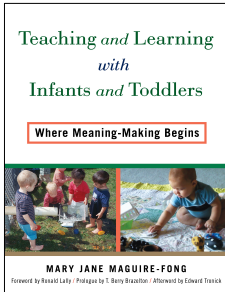


Planning question: What will the infants do in response to soap dishes added to the collection of familiar toys?

Observation	Reflection/Interpretation
<ul style="list-style-type: none"> • Picks up small soap dish, mouths, fingers, peers at it • Flings it away & it lands to his right • Turns to look at pile of objects • Picks from pile a soap dish identical to the one he had earlier • Smiles as he waves it before his eyes • Stares at soap dish dropped earlier • Places 2nd soap dish on top of 1st one – identical match 	<ul style="list-style-type: none"> -Severyn appeared to notice how one object was the same as the other object (emerging skill: <u>classification, number</u>, i.e. making "2"). -Showed <u>delight in accomplishment</u>. - <u>Persisted</u>

39

For Deeper Study



Published by Teachers College Press
<http://store.tcpres.com/0807756199.shtml>

Mary Jane's website with resources aligned to book:

<https://sites.google.com/site/teachinglearninginfants/>

Mary Jane Maguire-Fong
mj.maguirefong@gmail.com

40

"If we believe that children possess their own theories, interpretations, and questions...then the most important verbs in educational practice are no longer 'to talk,' 'to explain' or 'to transmit' – but 'to listen.'"

- Carline Rinaldi, 2006

Rinaldi, C. (2006). *In Dialogue with Reggio Emilia: Listening, researching, and learning*. New York: Routledge.

41

'Stand aside for a while and leave room for learning, observe carefully what children do, and then, if you have understood well, perhaps teaching will be different from before.'

Malaguzzi, L. (2012). History, ideas, and basic philosophy: An interview with Lella Gandini. In C. Pope Edwards, L. Gandini, & G. Forman (Eds.), *The Hundred Languages of Children: The Reggio Emilia Experience in Transformation* (3rd ed., p. 57). Santa Barbara, CA: Praeger.

42

Additional Resources

- Lally, J. R. (Producer/Director), Mangione, P. L. (Writer/Director). (2006). *New perspectives on infant/toddler learning, development, and care* [DVD] Disc 2, Chapter 3). United States: California Department of Education.
- California Department of Education. (2012). *California Infant/Toddler Curriculum Framework*. Sacramento, CA.
- Rinaldi, C. (2006) Creativity, Shared Meaning, and Relationships, in J.R. Lally, P.L. Mangione, & D. Greenwald (Eds.), *Concepts for Care: 20 Essays on infant/toddler development and learning*, pp. 21-23. San Francisco, CA: WestEd. [Chapter available online at http://www.wested.org/online_pubs/ccts-06-01-chapter4.pdf]
- Free online DVD's produced by California Department of Education
[Learning Environments and Curriculum](#) (21:26)
 This video addresses "Curriculum and Curriculum Planning," "Environments, Schedules, and Routines," and "Strategies to Support Learning and Development."
[Observation, Screening, Assessment, and Documentation](#) (19:25)
 This video addresses "Observation," "Screening and Referral," "Assessment," "Documentation," and "Interpretation, Planning, and Implementation."
[Child Development and Learning](#) (16:32)
 This video addresses "Knowledge About Child Development and Learning" and "Facilitating Child Development and Learning."

43